

What is claimed is:

1. A coating process of a powder metal micro thin film, suitable for use in a container in any profile and having at least one smooth interior bottom surface, the process comprising:

5 mixing a predetermined amount of powder metal with a predetermined amount of liquid to form a powder metal mixture, wherein the amounts of powder metal and liquid are adjusted to allow fluent flow of the powder metal mixture;

 stirring the powder metal mixture;

 filling the powder metal mixture in the container;

10 vibrating the container;

 vaporizing liquid of the powder metal mixture; and

 forming a thin film of powder metal deposited on the interior bottom surface of the container, wherein the thin film is thinner than about 0.1mm.

2. The process as claimed in Claim 1, wherein the container comprises one
15 interior bottom surface.

3. The process as claimed in Claim 1, wherein the container comprises a plurality of interior bottom surfaces arranged in a stair-like configuration.

4. The process as claimed in Claim 1, wherein the powder metal includes copper powder.

20 5. The process as claimed in claim 1, wherein the liquid includes pure water.

6. The process as claimed in Claim 1, further comprising performing a sintering process.